

CLAIMS

1. A drilling tool for a surgical drilling machine including a drill bit which comprises a shaft, a tip and a coupling member for establishing a rotary connection to a rotary drive for the drilling machine, wherein a surrounding proximal protective sleeve having a proximal and a distal end is mounted on the shaft and a distal protective sleeve is resiliently insertable into said proximal protective sleeve and surrounds the drill bit between the distal end and the tip of the drill bit over at least a portion of the length thereof, wherein the proximal protective sleeve comprises a rotation preventing means which prevents rotation of the proximal protective sleeve relative to the drilling machine when a drill bit is inserted in the drilling machine.
2. A drilling tool in accordance with Claim 1, wherein the distal protective sleeve when in its extended state masks the drill bit to beyond the tip thereof.
3. A drilling tool in accordance with Claim 1, wherein the proximal protective sleeve is mounted on the shaft of the drill bit such as to be rotatable about the longitudinal axis thereof.
4. A drilling tool in accordance with Claim 3, wherein the proximal protective sleeve and the shaft of the drill bit comprise mutually facing open peripheral grooves in which there engages at least one common bearing element.

5. A drilling tool in accordance with Claim 4, wherein the bearing element is elastically deformable and snaps resiliently into one of the two peripheral grooves when the proximal protective sleeve is displaced axially relative to the shaft.
6. A drilling tool in accordance with Claim 5, wherein one peripheral groove is very shallow whilst the depth of the other peripheral groove is greater.
7. A drilling tool in accordance with Claim 5, wherein the bearing element is a ring.
8. A drilling tool in accordance with Claim 1, wherein the rotation preventing means is formed by a radial projection of the proximal protective sleeve which engages in a recess in the drilling machine.
9. A drilling tool in accordance with Claim 1, wherein the proximal protective sleeve is fixable in the drilling machine in the axial direction.
10. A drilling tool in accordance with Claim 9, wherein the proximal protective sleeve comprises at least one recess into which a locking projection of the drilling machine is insertable.
11. A drilling tool in accordance with Claim 9, wherein the proximal protective sleeve carries a stop member with the aid of which it prevents displacement of the drill bit in the distal direction.

12. A drilling tool in accordance with Claim 11, wherein the coupling member engages axially in form-locking manner in a coupling seating in the drilling machine.
13. A drilling tool in accordance with Claim 1, wherein the shaft of the drill bit is provided with a collar which has an edge that adjoins a step of the proximal protective sleeve and comprises a peripheral groove for accommodating an O-ring, wherein said O-ring engages in an opposed peripheral groove in the proximal protective sleeve, the end face of said collar being provided with a drive means which is insertable in the form of a coupling member into a driver opening in the rotary drive for the drilling machine.
14. A drilling tool in accordance with Claim 1, wherein the shaft is surrounded by a helical spring which is supported at one end on the shaft and on the distal protective sleeve at the other.
15. A drilling tool in accordance with Claim 14, wherein, at at least one end thereof, the helical spring comprises an end winding which extends transversely relative to the longitudinal axis thereof and serves to support the spring on a support surface of the shaft or the distal protective sleeve.
16. A drilling tool in accordance with Claim 1, wherein the distal protective sleeve is not rotatable with respect to the proximal protective sleeve about the longitudinal axis thereof.
17. A drilling tool in accordance with Claim 16, wherein the distal protective sleeve is of non-round cross-section and dips into a complementary opening in the proximal protective sleeve.

18. A drilling tool in accordance with Claim 1, wherein the distal protective sleeve carries a depth scale.
19. A drilling tool in accordance with Claim 1, wherein there is arranged on the distal protective sleeve a slip ring which is retained thereon by friction and is displaceable in the axial direction by overcoming the frictional force.